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22 October 1958

MEMORANDUM FOR THE RECORD

SUBJECT: MK II Limpet Placement Tests on DD-429

1. On 17 October 1958 additional pin-up placement tests were made on the DD429 at Stump Neck, Maryland.
2. Several MK II Limpets which had been placed on 29 August 1958 were removed and examined. These limpets which had been on the ship for 49 $\frac{1}{2}$ days were found to be covered with green grass-like growth, dirt, and numerous small worms. The pin-up guns were corroded but the aluminum cases were in good condition.
3. Limpet No. 22 which was fitted with an old style A. C. Delay with gold ampule was examined and it was found that the delay had not functioned but the fuze well was dry. Water temperature was estimated to average approximately 60° during this period.
4. Limpet No. 16 fitted with two green ampoule MK II A. C. Delays and an anti-removal device was found to have wet fuze wells because the A. C. Delays had been screwed in too tight, thus damaging the "O" ring seal. The delays had both functioned. The anti-removal device functioned on removal of the Limpet and upon examination was found to be clean and dry.
5. Limpet No. 19B (No. 19 was lost in placement), fitted with one MK II A. C. Delay, red ampoule was removed and found to be wet inside but had functioned.
6. Placement tests were made as follows:
 - No. 23 - Using long rod with pull release trigger handle, no firing devices. Made good placement.
 - No. 24 - Same set-up as No. 23 but attempted to make deeper placement. Rod bent allowing slack in trigger cable and only way placement could be made was to pull slack from cable by hand.
 - No. 25 - Same set-up and results as No. 24
 - No. 26 - Same set-up as No. 24 except one 24-hour Clock was installed as a fuze.

As a result of these tests it is concluded that:

- a. The MK II A. C. Delay can very easily be made to leak water in the fuze well if improper torque is applied.
- b. The pull release trigger placement rod is not sufficiently rigid to permit deep placement using the trigger release.

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